

## REMARKS

Claims 20 and 23 – 44 have been amended. No claims have been cancelled or added. Hence, Claims 1 – 44 are pending in the Application.

The amendment to the specification adds matter from the Background section of U.S. Provisional Application No. 60/500,050, which was incorporated by reference within the present application. Therefore, no new matter has been added.

## SUMMARY OF REJECTIONS/OBJECTIONS

The specification has been objected to for lacking a BRIEF SUMMARY OF THE INVENTION.

Claims 23 – 31 and 40 – 44 are rejected under 35 USC 101 because the claims are directed toward non-statutory subject matter. The claims have been amended to cite computer-readable **storage** medium rather than just computer-readable medium, thereby overcoming the rejection.

Claims 1 – 9, 18 – 22, 23 – 31 and 40 – 44 are rejected under 35 USC 102(e) as being anticipated by U.S. Patent Application No. 2003/0212789, referred to herein as Hamel.

### Objection for Lack of Summary

The Office Action states Applicant is required to provide a Brief Summary of the Invention. The Office Action cites Rule 1.73 as requiring a Brief Summary of the Invention. However, Rule 1.73 does not make a Brief Summary of the Invention a requirement.

Specifically, Rule 1.73 states that "Such a summary should, **when set forth**, be commensurate..." The use of the conditional phrase "when set forth" necessarily implies that a Brief Summary of the Invention may not and need not be set forth.

Furthermore, when the rules make a mandatory requirement, the rules do not use the term should. Instead, terms like "must" are used. For example, Rule 1.63 states "An oath or declaration filed ... *must*:" include various items, such as an identity of the inventors, their citizenship etc. Rule 1.75 states the "specification *must* conclude with a claim...". (emphasis added)

Finally, the Electronic Filing System for patents does not require a Brief Summary of the Invention. Certainly, the Electronic Filing System would require a Brief Summary of the Invention if the PTO interpreted the rules to require one. That this is the official stand of the PTO can be confirmed by consulting the Patent Quality Review Board.

### **Rejections Based on 102(e)**

#### **Independent Claim 1**

Claim 1, recites:

a database server causing a tablespace to be transported from a first file system to a second file system; and  
after transporting said tablespace to said second file system, said database server importing said tablespace into a local database managed by said database server.

Claim 1 recites transporting a database server that both causes a tablespace to be transported between a first and second file system, and then imports the tablespace into a local database managed by the database server. This way of automatically provisioning a database is not disclosed or in any way suggested by Hamel.

The Office Action alleges that paragraph 0075 teaches "a database server causing a tablespace to be transported from a first file system to a second file system." Paragraph 0075 describes a scenario for the invention (of Hamel), in which "a table from the source database which is being replicated to the target database is defined in a tablespace created

without database compression. The user desires to alter the tablespace such that database compression will be used." This sort of alteration requires that the log records for a table be compressed. "If the user makes this change abruptly, and the replication capture program is still reading older non compressed log records, the log records will suddenly become unintelligible to the log read API that is expecting to decompress log records." (id.)

The next paragraph describes how the method of the invention avoids replication problems under this scenario. "The user stops activity on the source database in anticipation of the tablespace alteration.... The replication Capture component reads and continues to process log records ... then gracefully terminates, having captured and committed all source database changes into its control tables...The alteration (i.e., the change or changes in schema and/or metadata) can now be made, and then the capture program can be safely restarted." (0076 – 0077)

The above passages teach about something that Hamel refers to as a tablespace. In particular, the passages teach how the process of applying changes from the source database to the target database can be paused at a point that corresponds to when a tablespace alteration occurred at the source database, to create a window within which the tablespace at the target may be altered safely and consistently with the tablespace at the source database. However, nowhere do these passages teach that a database server transports a tablespace between file systems, as claimed

Based on the foregoing, Hamel fails to teach features of claim 1, and therefore fails to teach all the features of claim 1. Therefore, claim 1 is patentable. Reconsideration and allowance of claim 1 is respectfully requested.

### **Independent Claim 18**

Claim 18, recites a "method for automatically instantiating database data in a distributed database system", comprising  
"a database server causing a set of one or more files to be transported from a first file system to a second file system;  
wherein said set of one or more files store data for a database; and  
after transporting said set of one or more files to said second file system, said database server provisioning said database as a database managed by said database server."

Claim 18 requires that to automatically instantiate a database, that a **database server** causes a file that stores data for a database to be transported between a first and second file system, and then provisions the database as one managed by a database server. This technique for instantiating a database system is not taught or suggested in any way by Hamel.

As a preliminary matter, Hamel does not teach techniques for instantiating a database. Hamel teaches techniques for replicating data and even fully copying data between tables between database systems. However, Hamel does not discuss how to instantiate or provision a database, much less teach about doing so using the steps of claim 18.

Various passages of Hamel have been cited as teaching various limitations of claim 18. However, as explained below, these passages do not teach what the Office Action alleges are taught.

a. Hamel fails to teach a "database server causing a set of one or more files to be transported from a first file system to a second file system."

Note that claim 1 is not simply claiming transporting one or more files between file systems, but that a database server is causing the transporting of the files. Such functionality is not part of conventional database servers.

One passage cited for teaching this feature is 0075. Presumably, the replicated tablespaces have been equated to the files as claimed. However, as explained with respect to claim 1, this passage does not teach transporting a tablespace. The passage also does not teach transporting files.

Another passage cited is 0031. This paragraph teaches about "managing events that are dependent ... upon a time line.... Exemplary events include initiating asynchronous data replication from a source data table to a target data table, replication to a new target table or to a target table having a new schema, or recovery at a common recovery point for two (distributed) databases...." It does not follow from a teaching about replication of data between tables within a distributed system that a "database server caus[es] a set of one or more files to be transported from a first file system to a second file system".

b. Hamel fails to teach said database server provisioning said database as a database managed by said database server.

One passage in Hamel cited for teaching this limitation is 0051. This passage summarizes an invention taught by Hamel. The passage describes how a row is inserted into a signal table and updated with a log sequence number, and how data in a source table is replicated in a target table up to a point corresponding to the log sequence number. While the passage describes, at a high level, that data in a table is replicated using this mechanism, it does not follow from such a teaching that a database server is provisioning a database as a database managed by said database server, as claimed.

Another cited passage from Hamel is 0061. This passage teaches about the initial steps performed by an apply program before the program synchronizes a target table with the changes to a source table. (see also paragraph 0062) The steps include checking to determine that there are changes to be replicated and "synchroniz[ing] the target with the replication source by copying all the data from the source table to the target table.... This action is called a full-refresh copy." While the passage discusses fully refreshing a target table, it does not necessarily follow that because a full-refresh of a table is being performed, that a database server is provisioning a database.

The last passage cited by the Office Action is 0084. This paragraph discusses how the inventions of Hamel may be used to replicate changes to tables on a daily basis. There is no teaching whatsoever in this passage about a database server provisioning a database.

Based on the foregoing, Hamel fails to teach features of claim 18, and therefore fails to teach all the features of claim 18. Therefore, claim 18 is patentable.

Reconsideration and allowance of claim 18 is respectfully requested.

### **Claims that Depend On Claim 1 or 18**

#### **Claim 5**

Claim 5 depends on claim 1. Claim 5 requires that a "tablespace is attached to another database before and during performance of the step of said database server causing a tablespace to be transported." The Office Action cites paragraphs 0056, 0061, 0075 as teaching these limitations. It is unclear to Applicant what in these passages is being equated to an attachment of the tablespace to a database. Nevertheless, as discussed above, none of these passages discusses transporting a tablespace or files. Therefore, assuming that something in claim 5 has been equated to attachment of the tablespace, the attachment cannot possibly be occurring during transport of the tablespace.

Based on the foregoing, Hamel fails to teach features of claim 5, and therefore fails to teach all the features of claim 5. Therefore, claim 5 is patentable. Reconsideration and allowance of claim 5 is respectfully requested.

#### **Claim 7**

Claim 7 recites that the "database server provisions a synchronization mechanism that applies changes made to the tablespace to the copy." Clearly, Hamel teaches a synchronization mechanism that obviously must be provisioned in some way before being operated. However, it does not necessarily follow that the synchronization mechanism is provisioned by a database server.

Based on the foregoing, Hamel fails to teach features of claim 7, and therefore fails to teach all the features of claim 7. Therefore, claim 7 is patentable. Reconsideration and allowance of claim 7 is respectfully requested.

#### **Claim 20**

Claim 20 depends on claim 18. Claim 20 recites "wherein said set of one or more files includes metadata describing database objects and commands for inserting data into the database objects, wherein the step of provisioning includes importing said data into said database by executing said commands." Claim 20 has been amended to fix a typographical error. The correction makes clear that the commands being executed include those in the one or more files that are being transported (see also claim 18). Thus, claim 20 requires transporting one or more files, that include data for a database, metadata describing database objects, and commands, and executing the commands from the file to provision a database. Executing commands to provision a database, where the commands are transported in files along with the database data and metadata describing database objects, is a feature not taught in any way by Hamel.

The Office Action cites paragraph 0034 as teaching claim 20. The passage does talk about a first command and a second command that are "entered into the recovery log...as a side effect of modifying tables of the database." (0033) The "first command is a signal stopping the capture of data from a particular database table, and the second command may be a signal starting copying into the ... database table." While the passages discuss entering the commands into a log, there is no teaching about transporting the commands in files along with data for a database or metadata describing database objects, as claimed. While the passages teach that the commands are commands used to replicate data, it does not follow from this teaching that commands are executed to provision a database, as claimed.

Based on the foregoing, Hamel fails to teach features of claim 20, and therefore fails to teach all the features of claim 20. Therefore, claim 20 is patentable.

Reconsideration and allowance of claim 20 is respectfully requested.

### **Remaining Pending Claims**

The pending claims not discussed so far are dependant claims that depend on an independent claim that is discussed above. Because each of the dependant claims include the limitations of claims upon which they depend, the dependant claims are patentable for at least those reasons the claims upon which the dependant claims depend are patentable. Removal of the rejections with respect to the dependant claims and allowance of the dependant claims is respectfully requested. In addition, the dependent claims introduce additional limitations that independently render them patentable. Due to the fundamental difference already identified, a separate discussion of those limitations is not included at this time.



For the reasons set forth above, Applicant respectfully submits that all pending claims are patentable over the art of record, including the art cited but not applied. Accordingly, allowance of all claims is hereby respectfully solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

Respectfully submitted,

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